

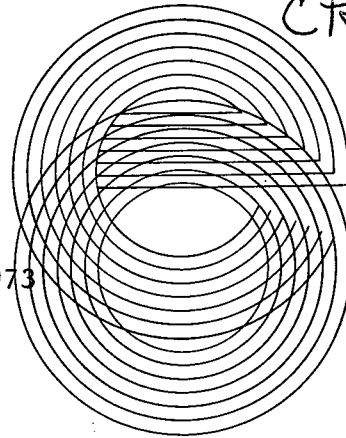
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April 9, 1973

DR. ROBERT J. COLLINS, JR.
President



E7.3 10444
CR-131239

Gentlemen:

This is a Type I Progress Report for the period February and March 1973.

Experiment Title: An Evaluation of the Suitability of ERTS Data
for the Purposes of Petroleum Exploration

Principal Investigator: Dr. Robert J. Collins, GSFC Identification No. PR 043

Current Status

The continuing analysis phase of the experiment is proceeding well and analysis of the fall acquired imagery is almost completed. Experimentation with various types of optical and digital enhancement have begun and are proceeding well. We are awaiting arrival of spring acquired imagery in order to compare it to the fall acquired imagery.

Our analysis to date convinces us that ERTS imagery in conjunction with larger scale higher resolution imagery (photography from RB 57 overflights and SLAR from SAC) is an excellent tool for rapid geologic reconnaissance analysis of large sedimentary basins. Final assessment of the value of ERTS imagery for more detailed types of petroleum exploration tasks must await completion of analysis.

Activities During Reporting Period

- 1.) Continuing analysis of the six ERTS frame areas of primary interest.
- 2.) Initial evaluation enhancement techniques on imagery of the test site.
- 3.) Completed compilation of geophysical data on to overlays of 1:250,000 scale topographic maps.
- 4.) Preliminary testing of the ability of ERTS imagery to detect structural features known to contain hydrocarbons.

E73-10444) AN EVALUATION OF THE
SUITABILITY OF ERTS DATA FOR THE
PURPOSES OF PETROLEUM EXPLORATION
Progress Report, (Eason Oil Co., Oklahoma
City, Okla.) 2 p HC \$3.00 CSCL 08G

N73-20404

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Projected Activities During the Coming Reporting Period

During the next reporting the major activities will be completion of analysis and preparation of the final report on the experiment. Other activities will include:

- Analysis of spring acquired ERTS imagery and comparison to the fall imagery.
- Completion of evaluation of enhancement techniques.
- Completion of compilation of maps and overlays.

Problem Areas

We have not yet received imagery from the spring acquisition cycle. Analysis of this imagery will probably delay completion of the final report to the end of May or first part of June (we had originally anticipated completion in early May). This delay will cause no expense to NASA either in terms of funding or acquisition of additional imagery.

Respectfully submitted,



Robert J. Collins

President, Eason Oil Company